

Climate Forecasting Unit

To: CFU

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Subject: EUPORIAS WP22 Meeting, Zurich, Switzerland 3-4th February 2014

Meeting summary

Partners present:

- Joaquín Bedia, UC
- Carlo Buontempo, MetOffice
- Sandro Calmanti, ENEA
- James Creswick, WHO
- Aida Pintó, IC3
- Gerard van der Schrier, KNMI
- Mark Liniger, MeteoSwiss
- Christoph Spirig, MeteoSwiss
- Irina Mahlstein, MeteoSwiss
- Claudia Mignani, MeteoSwiss

03-02-2014: Every partner presents it's status of work

The meeting started with a brief introduction from Mark Liniger to the Meteoswiss office, the work they do and it's general structure. It was followed by a brief introduction from Carlo Buontempo who explained the aim of the meeting and the main purpose and objective of the WP22.

The challenges of the WP22 can be categorized into 3 groups:

Production issues (bias, sample size, data handling, daily data or transfer functions, and availability of observations), quality issues (validation data, skill, validation measures, reliability, Europe vs. Other parts of the world) and relevant issues (WP12 findings, stakeholder needs , prototype needs, visualization, uncertainty communication and skill presentation).

The goal of the Milestone 20 and the objectives of the meeting were to:

- Agree on set of specialized Climate Information Indices (CII's).
- Agree on reference series
- Agree on basic set of validation measures

After that introduction individual presentations from each group representative started.

I was the first to speak in representation of the Climate Forecasting Unit from IC3. I presented the main case that we are working with, consisting on deciding a case study to apply a CII selected from the list available. In our group we work with the number of days above/below a selected threshold (20m/s and 5m/s) that let the turbine engine to work. For the moment we just presented the results for wind forecasts but we are currently working with solar energy too.

I also presented some preliminary results from my PhD (Seasonal prediction of Climate Extremes). Concretely I showed maps for the forecasts of the first month for the correlation and the Root Mean Square Skill Score (RMSSS) of the 90th percentile of the wind speed with the start date of February between the MME (ENSEMBLES Multimodel data) and the ERA-Interim reanalysis for the period 1979-2005. I also presented the caveats of the work done and the future research projects. I obtained some important feedback about both CFU and mine own results that I will take into account for the upcoming work.

Following my presentation other group's representative showed their work:

- Gerard van der Schrier from KNMI spoke about their current work with the EObs dataset and the new developments being done.
- Carlo Buontempo spoke about the MetOffice work with the Heating Degree Days (HDD) and Cooling Degree Days (CDD) and also with the wind speed applied to the hurricane forecasts.
- Sandro Calmati from ENEA spoke about the seasonal forecasting for electricity demand applications and the seasonal forecasting of droughts applied to the warming in East Africa.
- Joaquin Badia from UC Santander spoke about the generation of fire weather indices.
- Julliete Mignot spoke about the current status of the SPECCS project and its relation and implication with EUPORIAS and concretely with the WP22 milestones.
- Claudia Mignani from MeteoSwiss spoke about the construction of a perfect model to have better skill applied at predicting climate extreme temperatures.
- James Creswick from WHO spoke about health climate important indicators.

The day concluded with some discussions and conclusions about what was said.

04.02.14: Discussions on verification and visualization, prototypes and implications for WP22, MS20, D22.1, presentation on verification and visualization by Chrsitoph Spirig

It was a day for discussions on the main objectives to be decided in the meeting. First some presentations from Carlo Buontempo and Christoph Spirig on verification and visualization were made. After the main discussions for each milestone took place.

Discussion milestone 20:

In April it will be known which prototypes (possibly 5) will be selected. We will know more about specialized CII's then. Nonetheless, the CII's agreed on for Milestone 20 are of importance to the project and we should proceed with the analysis.

After the discussion it was agreed on:

- Choosing indices without knowing the prototypes and focus on prototypes later on.
- Which partner will work on which indices in the future (to avoid cross work) and identify exchange of partners. CII's derived from information of WP12 interviews were showed in the meeting.

- Reference series to use: E-OBS over Europe and ERA-Interim on global scale.
- Each partner should think about the procedure of correction of the bias, especially whether the bias should be removed pre or post the calculation of the index.
- The goal is to share a tool to calculate the skill scores in order to guarantee consistency. The tool to be shared still needs to be identified.
- Four skill scores which should be calculated for each index:
 - Anomaly correlation
 - ROC area
 - CRPS
 - Spread-error ratio

Also issues related to indices and skill scores were discussed: What is a good skill score for indices? How to deal with indices that characterize rare events? Indices that have only values in certain regions and 'fade' out (e.g. HDD, get rarer the more south). For all of that SPECS might be able to provide some guidance or discussion partners.

Discussion Deliverable 22.1:

The main goal of Deliverable is to have maps of preliminary CII's (also to work on CII's identified in Milestone 20)

It was agreed that must have consistent visualizations: Same color tables and spacing should be used for reasons of comparability. And the type of maps decided:

- Climatology of the index based on the observation
- Optionally: variability of index
- Maps of skill scores for the following scores: ACC, ROC, CRPSS, spread/skill ratio (same routines should be used)
- Maps of bias

Also they talked about the possibility to present these results at EMS where MeteoSwiss will submit an abstract.

My conclusions

It was a good experience to assist to this event in representation of the CFU. It was a big responsibility to me to present my team work and my own work too but it also was a good training for developing my skills at speaking in public and discussing important issues regarding my work.

About what was said in the meeting, I don't have anything else to add to the described before. It was very interesting to see what other Scientific's do and to know that although different variables or final purposes of the analyses that each do, the way to do it and the basis are more or less the same. So it was a good opportunity to discuss about more efficient ways to do my work, to know different opinions and critics of what I do, that can allow me to improve all my results in the future analysis.

And finally I think that the main purpose of the meeting which was to reach an agreement for the topics listed before (see goal of Deliverable 22.1 and goal for milestone 20), was completed successfully.

I hope that I will be able to attend those kinds of meetings in the future, and to continue developing all my knowledge in all the topics discussed to be able to be much more active in discussing all the issues.

For more information in the EUPORIASS wiki the PowerPoint's of the presentations, some documents regarding the WP22 and the minutes of the meeting can be found.

MISSION REPORT

<https://euporias.wikidot.com/wp22-meeting>